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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,520	10/24/2003	Alex Long	4006-271	9118

22429 7590 08/18/2005

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EXAMINER

MARCHESCHI, MICHAEL A

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 08/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/691,520

Applicant(s)

LONG, ALEX

Examiner

Michael A. Marcheschi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-71 is/are pending in the application.
4a) Of the above claim(s) 65-71 is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) 1-64 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

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Applicant's election without traverse of group I, claims 1-64 in the reply filed on 6/2/05 is acknowledged.

Applicant is reminded to cancel the non elected claims.

Claims 1-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 9, 13, 15, 23, 27, 29, 30, 34, 41, 45, 47, 48, 59 and 63 are indefinite as to the limitation (1) "forming a base layer" or "forming a second base layer", (2) "forming a binding layer", (3) "forming a protective layer", (4) "forming a fixation layer" and (5) "forming a first base layer with padding particles" because the examiner is unclear as to how the layers are formed, thus rendering the scope of the claims unclear.

Claims 1, 9, 15, 23, 29, 31, 41, 47, 49 and 59 are indefinite as to the limitations (1) "removing the base layer" or "removing the second base layer", (2) "removing the substrate", (3) "removing the fixation layer" and (4) removing the first base layer with padding particles" because the examiner is unclear as to how they are removed, thus rendering the scope of the claims unclear.

Claims 10, 24 and 60 are indefinite as to the limitation "between forming...further comprises roughening..." because the examiner is unclear as to if this is part of the forming steps or if it is an intermediate step. If the latter is the case, the above limitation should be changed to clearly define this (i.e. between **the steps of forming...the method further comprises the step of roughening...**).

Claims 12, 26 and 62 are indefinite as to the limitation “between forming...further comprises performing...” because the examiner is unclear as to if this is part of the forming steps or if it is an intermediate step. If the latter is the case, the above limitation should be changed to clearly define this (i.e. between **the steps of forming...the method further comprises the step of performing...**).

Claims 13, 27, 30, 31, 49 and 63 are indefinite because it does not clearly define that this is a further step. The claims should be rewritten to clearly define this additional step (i.e. **the process further comprises**).

Claims 14, 28 and 46 are indefinite as to the limitation “diamond-like” because the examiner is unclear as to what this is, thus rendering the scope of the claims unclear. Is it a diamond or not. What does “like” signify?

Claims 29 and 34 are indefinite as to the limitation “padding particles” because the examiner is unclear as to what these are, thus rendering the scope of the claims unclear. What is a padding particle? Are they fillers (assuming supported by specification)?

Claim 40 is indefinite as to the limitation “the second layer” because it does not define what this is. The claim should be amended to clearly define that the second layer is the second **base** layer.

Claims 42, 44 and 45 are indefinite because the examiner is unclear as to when this step takes place.

Claim 48 is indefinite as to the limitation “between the step of forming...further comprises filling...” because the examiner is unclear as to if this is part of the forming steps or if it is an intermediate step. If the latter is the case, the above limitation should be changed to

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clearly define this (i.e. between the steps of forming...**the method further comprises the step of filling...**”.

Claims 1-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1, 9, 13, 15, 23, 27, 29, 30, 34, 41, 45, 47, 48, 59 and 63 defines the limitations (1) “forming a base layer” or “forming a second base layer”, (2) “forming a binding layer”, (3) “forming a protective layer”, (4) “forming a fixation layer” and (5) “forming a first base layer with padding particles”, however, the specification does **not** provide support for **any and all** forming method known. With respect to (1) and (2) above, the specification only defines that the base layer and the binding layer are formed by plating techniques (electroplating or chemical plating), sintering or brazing. With respect to (3) above, the specification only defines that the protective layer is formed by vapor deposition and spray on techniques. With respect to (4) above, the specification only defines that the fixation layer is formed by electroplating, chemical plating, sintering or brazing. With respect to (5) above, the specification only defines that the first base layer with padding particles is formed by plating techniques in a plating solution. In view of this, the above limitations defined in the above claims are broader in scope than what is defined in the specification, thus the specification is not enabling for any and all forming techniques (i.e. forming by bonding using an organic binder). Page 7, line 20-page 8, line 9, lines 9-11, page 9, lines 20-22 and page 10, lines 21-23 defined the forming methods used).

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Claims 1, 9, 15, 23, 29, 31, 41, 47, 49 and 59 defines the limitations (1) “removing the base layer” or “removing the second base layer”, (2) “removing the substrate”, (3) “removing the fixation layer” and (4) removing the first base layer with padding particles”, however, the specification does **not** provide support for **any and all** removal method known. The specification only defines that the layers are removed by wet etching or grinding. In view of this, the above limitations defined in the above claims are broader in scope then what is defined in the specification, thus the specification is not enabling for any and all removal methods (i.e. stripping by mechanical force).

Claims 1-64 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the **specific** forming and removing methods defined in the specification, does **not** reasonably provide enablement for **any and all** forming and removing methods. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

The enablement issue has been addressed above, the remarks which are hereby incorporated by reference.

Claims 1-64 would be allowable if amended to overcome the 112 rejections above because the prior art of records **fails** to teach or suggest a method of making an **abrasive article** which comprises all of the claimed specific steps. Specifically, the removal steps. DeVoe et al., An, Peterson et al., and Holmes et al. all teach conventional methods of making abrasive articles (substrate coated with a make coat, abrasive particle and a size coat) but fails to defining the

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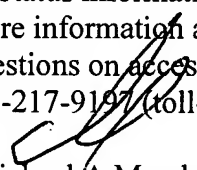
claimed removal steps. Marecki and Altman disclose methods of making retro reflective sheets, said methods comprises specific removal application. These references are, however, not method of making abrasive articles and are therefore non analogous art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Marcheschi whose telephone number is (571) 272-1374. The examiner can normally be reached on M-F (8:00-5:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-12331233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MM
8/05


Michael A Marcheschi
Primary Examiner
Art Unit 1755

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